II. INFORMATION – DATA AND DOCUMENT – MANAGEMENT

Computers have changed the way we think about information, the ease and speed in which it can be accessed, and the manner in which it can be assembled to create a new resource for decision makers. The State recognized that this potential rested on the communication network and the readability of the bits and bites transmitted. To this end, the Information Services Policy Board and individual agencies have made a concerted effort to lay the groundwork to assure that the applications that create and store documents and data can seamlessly share the information.

A. ACCOMPLISHMENTS

Desktop.

The State has recognized the utility of desktop computers, e-mail, and other application tools in enhancing the effectiveness and efficiency of its employees. Currently 11,300 desktops with supporting LAN, WAN, e-mail, and Internet connections are dispersed though all state agencies. In recognition of the benefits of standardization both for the communication of information, training of personnel, and purchase of equipment, the ISPB has established standards for desktop productivity tools (Microsoft Office) and e-mail (Microsoft Exchange and Outlook). Agencies are aggressively consolidating on the Microsoft desktop standards. The Legislative Branch and over 90% of the Executive Branch agencies are using Microsoft Exchange server e-mailboxes.

Data Base Management Systems.

The ISPB has established state government standards for Data Base Management Systems (DBMS). These include the following DBMS applications for large, medium, and small databases:

- Large databases: Oracle.
- Medium databases: Oracle, Progress, or SQL Server.
- Small databases: Microsoft Access.
- Individual user databases: Microsoft Access or Lotus Approach.

All applications developed in recent years have complied with these standards enhancing the enterprise sharing of information, staff expertise, user training, and application development.

DBMS for a Paperless Office

The Secretary of State, Bureau of Corporations, Elections, and Commissions uses an Oracle DBMS to support both its corporation and UCC (leans) filings application and its election

management application (see pages 26-27).

Searching for Jobs and Filling for Unemployment Online

The Department of Labor has aggressively reengineered and migrated its "legacy" BULL mainframe applications and databases to Progress and Oracle client/server program support applications. In addition to managing client information, these applications enable Unemployment Insurance and Job Center customers to file for benefits, conduct job searches, and schedule job interviews online (see pages 25-26 & 30-31).

Meeting and Managing the Multiple Needs of Social Service Clients

The Department of Human Services has developed a number of Oracle database applications to manage its health and welfare programs (see pages 23-24). These will integrate the Department's assessments of eligibility across all programs and automate the processing and payment of benefits to clients and providers.

Data Warehouses.

The MFASIS Information Warehouse allows analysis of trends in budgeted and actual expenditures and in payroll, personnel, and position data (see pages 18-19). In addition to the enterprise MFASIS Warehouse the Departments Human Services and Transportation, among other agencies, are using data warehouse and data mart technologies to manage their own data resources.

Improving Management by Integrating Information.

The DHS, MMDSS (Maine Medicaid Decision Support System) pulls together information from many systems, allows quick access to a wide variety of data, and greatly enhances the ability to research historical Medicaid information.

Accessing Transportation Data with the Click of a Mouse.

The DOT, Transportation Information for Decision Enhancement (TIDE) is a data warehouse of transportation data with Geographic Information System (GIS) presentation tools (see page 14).

Geographic Information System

The State has developed a nationally recognized Geographic Information System (GIS). The central Office of GIS (OGIS) is administratively located in the Bureau of Information Services (BIS). To oversee its activities, the Information Services Policy Board established a GIS Executive Council. The Council is composed of all major GIS user agencies and currently has 19 members.

Common Shared Infrastructure.

Services provided by OGIS enable and enhance the ability of large and small agencies to utilize GIS. Certain functions

of the statewide system are centralized in OGIS to improve service, reduce duplicate efforts, and to enable cost-effective delivery. The primary central functions are:

- Managing master copies of the State's GIS databases.
- Developing state-of-the-art access pathways to these data resources.
- Training.
- Technical support.
- Common infrastructure development.
- Overall management.

These central functions give all agencies, regardless of size, equal access to GIS technology and geographic information. They enable agencies to add data files easily to the system using standard geographic location designators established by the OGIS. Provision of these central services has and will continue to be the primary role of the OGIS.

Enhanced 911.

In 1988, Maine voters approved the statewide deployment of Enhanced 911 service. The Maine Office of GIS (OGIS) is working with the Department of Public Safety (DPS) to support its statewide implementation. This improved emergency communication system automatically displays the physical address of a caller on a map at an emergency call answering center. Mapping the address allows center staff to send help to the precise address even if the caller becomes unconscious, hangs up, or does not speak English.

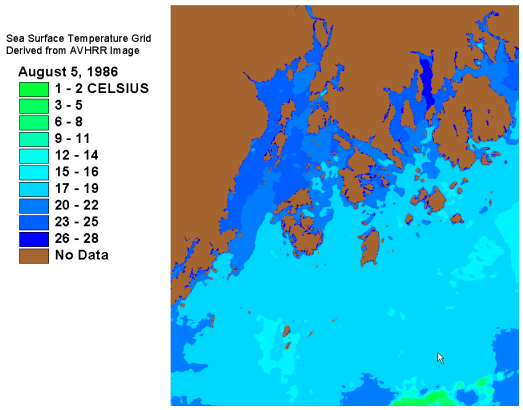
Enhanced Presentations to Policy Makers and the Public.

The Department of Transportation's Transportation Information for Decision Enhancement (TIDE) application uses GIS tools to map out and provide easily understandable information on state roads and highways for the Legislature, Governor, department personnel, local officials, and the general public. It creates maps to display roads and bridges, speed zones, capacity information, accident location data, construction project history information, and pavement management data.

Public hearing materials produced with CADD and GIS technologies provide citizens with easily understandable information about upcoming projects. "Smart" maps can show a diverse body of information, including project locations, animal accident densities, traffic counts, and inter-modal facilities. These help focus analysis and decision making processes

Managing Maine's Costal Resources

The Department of Marine Resources (DMR) has used GIS as part of the State's effort in the identification of



sensitive fishery habitat areas such as submerged aquatic vegetation for, among other issues, planning responses to potential oil spills; for aquaculture lease siting; and for managing shellfish flat closures. In addition, DMR and the State Planning Office have worked with the Island Institute on the Penobscot Bay Marine Collaboration Project. The project applies remotely sensed data from the National Oceanic and Atmospheric Administration's National Environmental Satellite Data and Information Service (NOAA/NESDIS) with state-of-the-art oceanographic data to describe the ecological characteristics of the Bay and to improve management decisions made about the Bay. DMR's management interest has in particular been focused on the Bay's lobster fishery, which is one of the largest in the State.

Protecting Maine's Environment.

The Department of Environmental Protection (DEP) databases and GIS are used to inventory and track environmentally sensitive areas such as wetlands, water bodies, aquifers, wildlife habitat, and public drinking water supplies. These data are used to determine the potential impact of proposed use and development activities.

GIS also aids DEP in its efforts to monitor hazardous wastes and spill sites and to respond to problems. It is a major and expanding user of GIS mapping and display technologies. Global Positioning Systems (GPS) and Geographical Information Systems (GIS) are used to prepare maps, detailed site plans, and 3-dimensional plume models to assist staff and the public to better interpret complex data sets and understand management issues in site remediation.

DEP's Marine Oil Spill Information System (MOSIS) recently drew high praise in a joint US / Canada exercise for its ability to produce real-time maps of environmentally sensitive areas to track spill containment and clean-up efforts.

Protecting Forestlands and Wildlife Habitats

The Departments of Conservation and Inland Fisheries and Wildlife (IF&W) have used GIS technology in their efforts to protect and manage Maine's forests and wildlife and to provide information for land use management. The Wildlife Division of IF&W has created data sets to display and track wildlife habitats for its activities in habitat assessment and protection and in recording of game species harvest data for species management planning.

The Department of Conservation uses GIS data sets and maps in its protection of forestlands and management of state parks and lands. The Department's Land Use Regulation Commission (LURC) has incorporated GIS in its planning and development regulation efforts in Maine's unorganized townships.

B. CURRENT INITIATIVES

Data Warehouse.

The DAFS, Maine Revenue Services (MRS) and the BIS are jointly developing a data warehouse for tax and other related data. The warehouse will be coordinated with the MFASIS Financial Warehouse and will provide information for improved audit selection, collections management, and non-filer identification. It will also provide data for MRS's revenue forecasting (see page 18).

Database Management Systems.

DHS will migrate its legacy BULL mainframe Welfre system to an Oracle based Automated Client Eligibility System (ACES) and Client Management System (CMS) (see page 27).

Geographic Information System:

The Information Services Policy Board has approved the GIS Executive Council's 5-year plan for consolidating and expanding GIS services for state and local government agencies. The plan addresses the need to develop a more permanent funding structure for the OGIS's central support functions and encourages appropriate application of GIS technologies.

Managing "Smart Growth"

The Maine Legislature has reached the conclusion that the best way to preserve Maine as "the way life should be" and at the same time keep "Maine on the move" is though Smart Growth. The OGIS initiatives in this area include the development of growth zone data mapping tools. The tools will aid planners and developers in designing projects and banks and other financial institutions in evaluating project compliance with Smart Growth grant guidelines. They will also enable state policy makers to track and evaluate the success of the State's growth management initiatives.

Managing Marine Resources for the Protection of Public Health

In a multi-state initiative, the State Planning Office and DMR have participated in the development of the Gulf of Maine Ocean Observation System (GoMOOS). When completed, the System will display oceanographic, ecological, and fisheries` data over the Internet. The collection of the data and the GIS mapping will enhance the analysis and presentation of resource management and planning issues in the Gulf of Maine.

DMR has also started an Internet Mapping Project. The project will provide shellfish harvesters and dealers, as well as the general public, access to real-time maps displaying information on Red Tide closures and sea surface temperatures. The prevention of paralytic shellfish poisoning caused by eating Red Tide contaminated shell fish is a continuing public health initiative of DMR. Among other future management uses, DMR intends display 30 years of data on the lobster fishery in each of 7 management zones.

C. FUTURE STRATEGIC DIRECTION

Document Management Systems.

Maine state government will develop policies, procedures, and document management applications to capture, store, and retrieve digital voice, data, and video records of both time limited legal and permanent archival value.

Action Items.

- Develop policies and procedures for the management of e-mail messages and electronic documents.
- Develop standards for document management systems.
- Develop policies, procedures, and technology requirements for the perpetual storage and retrieval of permanently valuable Archival records.

Data Management.

The State will integrate and share data resources across all agencies through the migration to standard interoperable database management systems, development of standard data definitions, and deployment of electronic application interchange (EAI) technology.

Action Items.

- The Department of Corrections will migrate and reengineer its databases and applications to an integrated set of state standard database management systems and applications.
- The ISPB will encourage the development of standard sets of data definitions and interoperable metadata for elements common to multiple applications and/or agencies.
- BIS will analyze need and develop specifications, for the installation of EAI technology.
- DHS and DMHMRSAS will work to make their database files and data dictionaries compatible with standards under the federal Health Insurance Portability and Accountability Act (HIPAA).

Data and Document Warehouse.

The State will develop data warehouse capacities to enable easy access and integration of information resources to meet the policy analysis and management needs of state government and promote the health, welfare, and economic security of Maine citizens.

Action Items.

The ISPB will develop Data and Document Warehouse standards to facilitate information sharing and transmission.